**Fixation of royalty on coal**

†1893. SHRI MOTILAL VORA: Will the PRIME MINISTER be pleased to state:

(a) whether the Government of Chhattisgarh has proposed to fix the coal royalty rate on the basis of its market price instead of rupee per tonne;

(b) whether Planning Commission has also given same suggestion to his Ministry;

(c) if so, the decision taken by Government in this regard; and

(d) if not, by when a decision would be taken in this regard?

THE MINISTER OF STATE IN THE MINISTRY OF COAL (DR. DASARI NARAYAN RAO): (a) Yes Sir.

(b) to (d) The Government has referred the issue of royalty rates on ad-valorem *vs* tonnage basis to Economic Advisory Council (EAC) to the Prime Minister for examination. The EAC would also consult the Planning Commission before giving its recommendations to the Government.

**Frontier technologies for coal mining**

1894. SHRIMATI S.G. INDIRA: Will the PRIME MINISTER be pleased to state:

(a) whether Government had asked the Coal India Ltd. to adopt new frontier technologies and efficient mining practices to increase production;

(b) if so, the details thereof;

(c) whether Coal India Ltd. is also considering to overcome constraints such as uneconomic underground mines, etc.; and

(d) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF COAL (DR. DASARI NARAYAN RAO): (a) and (b) A continuous thrust towards mechanization in the coal mines is being given by the subsidiary companies of Coal India Limited (CIL) by adopting new frontier technologies and efficient mining practices to increase production.

†Original notice of the question was received in Hindi.

In case of underground mines, at present there are a total of 305 existing mines as detailed below:

(i) 96 mines are already mechanized;

(ii) 209 mines are either manual or mixed *i.e.* having manual as well as mechanized workings. Of these, 80 mines are proposed for mechanization in the Xth Plan period. In opencast mines almost the entire coal production comes from mechanized mines. Thrust is being given for higher degree of mechanization in opencast mines with bigger size of Heavy Earth Moving Machineries (HEMM).

Some of the frontier technologies which are finding increasing application in CIL are Longwall mining, continuous miners in underground mines and surface miner in opencast mines.

(c) and (d) CIL is giving thrust for increasing mechanization and improving production and productivity to improve economics of underground mines.

By the end of Xth Plan, additional 4.46 million tonnes of coal production will be achieved by mechanization of above 80 underground mines.

**Exploration of Coal Bed Methane**

1895. SHRIMATI S.G. INDIRA: Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that Government have taken a decision to invest in technologies such as exploration of Coal Bed Methane (CBM) and Underground Coal Gasification (UCG);

(b) if so, the details thereof;

(c) whether it is also a fact that Government have envisaged CBM production and UCG equivalent to 25 million tonnes of coal by 2025; and

(d) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF COAL (DR. DASARI NARAYAN RAO): (a) and (b) Yes, Sir. Details of activities for promotion of Coal Bed Methane (CBM) and Underground Coal Gasification (UCG) are given as under:—